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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,749	08/01/2003	Hiroyuki Azuma	NEC 03P101	4659

27667 7590 04/08/2009

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EXAMINER	
SOBUTKA, PHILIP	
ART UNIT	PAPER NUMBER
2618	
MAIL DATE	DELIVERY MODE
04/08/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/632,749	AZUMA, HIROYUKI	
	Examiner	Art Unit	
	PHILIP J. SOBUTKA	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 January 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *20-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *20-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 January 2009* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings were received on January 5, 2009. These drawings are acceptable.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 20-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simpson et al (US 5,404,580) in view of Johansson et al (US 5,418,837).

Consider claim 20. Simpson teaches an external module (smart card) for installation into a mobile communication terminal (Abstract, column 4 lines 49-52), said external module comprising:

a test program execution unit, for testing a communication protocol (Column 1 lines 16-30, column 2 lines 65- 68, column 3 lines 1-4), including

a collection mechanism (the internal control logic attached to the keypad interface) for communicating with said mobile communication terminal to collect information from said mobile terminal relating to an internal state of said mobile

communication terminal during execution of a communication protocol sequence (Column 6 lines 48-68, column 7 lines 1-2), and

a storage mechanism for storing therein information that has been collected by said collection mechanism (Column 6 lines 48-68, column 7 lines 1-2, figure 3 element 132).

Simpson is silent as to whether the test program is executed from the smart card. Johansson teaches a smart card (SUM card figures 1A, 1B, item 22) with a processor (CPU see figure 1B item 22 column 4-15) which executes programs affecting the mobile phone (see for example column 5, lines 10-15). Johansson teaches that control from the smart card improves reliability of execution (see for example column 4, lines 51-66, column 5, and lines 10-15). It would have been obvious to one of ordinary skill in the art to modify Simpson with the processor equipped card execution as taught by Johansson in order to improve reliability as taught by Johansson.

As to claim 21, Simpson teaches an external module according to claim 20, further comprising: protocol execution mechanism for requesting said mobile communication terminal to execute a communication protocol sequence (Column 4 lines 53-56, where Simpson et al. describe a registration request).

As to claim 22, Simpson teaches an external module according to claim 21, wherein said protocol execution mechanism includes a mechanism for requesting the execution of said communication protocol sequence based on information that has been

stored in said storage mechanism (Column 4 lines 53-56, where Simpson et al. disclose a subscriber validation code).

As to claim 23, Simpson teaches an external module according to claim 21, wherein said communication protocol sequence is a communication protocol sequence that is performed by radio between a mobile communication terminal and a base station (Column 4 lines 53-56).

As to claim 24, Simpson teaches an external module according to claim 20, further comprising stored information processing mechanism (microprocessor) for processing information that has been stored in said storage mechanism (Column 4 lines 53-56.

As to claim 25, Simpson teaches an external module according to claim 24, wherein said protocol execution mechanism includes a mechanism for requesting the execution of a communication protocol sequence (registration) based on information that has been processed by said stored information processing mechanism (Column 4 lines 53-56).

As to claim 26, Simpson teaches an external module according to claim 20, wherein said external module is any one of a SIM card, a USIM card, and an IC card having higher specifications than a SIM card or USIM card (abstract, column 2, lines 28-36).

Consider claim 27. Simpson teaches a mobile communication terminal into which an external module is installed (Abstract, column 4 lines 49-52), said mobile communication terminal comprising:

an acquisition mechanism (the internal control logic) for acquiring information, in response to commands from said external module (the removable card, see figure 3, items 133,132, column 1, lines 28-65, column 5, lines 5-37), from said mobile terminal relating to an internal state of said mobile communication terminal during execution of a communication protocol sequence (Column 6 lines 48-68, column 7 lines 1-2) and

an output mechanism for supplying information that has been acquired by said acquisition mechanism to said external module where the information is stored (Column 6 lines 48-68, column 7 lines 1-2, figure 3 element 122).

Simpson is silent as to whether the test program is executed from the smart card. Johansson teaches a smart card (SUM card figures 1A, 1B, item 22) with a processor (CPU see figure 1B item 22 column 4-15) which executes programs affecting the mobile phone (see for example column 5, lines 10-15). Johansson teaches that control from the smart card improves reliability of execution (see for example column 4, lines 51-66, column 5, and lines 10-15). It would have been obvious to one of ordinary skill in the art to modify Simpson with the processor equipped card execution as taught by Johansson in order to improve reliability as taught by Johansson.

Consider claim 28. Simpson teaches a mobile communication system comprising:

a mobile communication terminal (abstract); and

an external module for installation into said mobile communication terminal (Abstract, column 4 lines 49-52);

wherein said mobile communication terminal comprises:

an acquisition mechanism (the internal control logic) for acquiring information, in response to commands from said external module (the removable card, see figure 3, items 133,132, column 1, lines 28-65, column 5, lines 5-37), from said mobile terminal relating to an internal state of said mobile communication terminal during execution of a communication protocol sequence (Column 6 lines 48-68, column 7 lines 1-2) and

an output mechanism (the internal control logic attached to the keypad and microprocessor) for supplying information that has been acquired by said acquisition mechanism to said external module (Column 6 lines 48-68, column 7 lines 1-2, figure 3 element 122);

and wherein said external module comprises:

a collection mechanism for collecting information from said mobile terminal that has been supplied by said output mechanism of said mobile communication terminal (Column 6 lines 48-68, column 7 lines 1-2); and

a storage mechanism for storing therein information that has been collected by said collection mechanism (Column 6 lines 48-68, column 7 lines 1-2, figure 3 element 132).

Simpson is silent as to whether the test program is executed from the smart card. Johansson teaches a smart card (SUM card figures 1A, 1B, item 22) with a processor (CPU see figure 1B item 22 column 4-15) which executes programs affecting the mobile phone (see for example column 5, lines 10-15). Johansson teaches that control from the smart card improves reliability of execution (see for example column 4, lines 51-66, column 5, and lines 10-15). It would have been obvious to one of ordinary skill in the art to modify Simpson with the processor equipped card execution as taught by Johansson in order to improve reliability as taught by Johansson.

Consider claim 29. Simpson teaches a method for testing communication protocol in a mobile communication terminal (Column 1 lines 16-30, column 2 lines 65-68, column 3 lines 1-4), an external module being installed into said mobile communication terminal (Abstract, column 4 lines 49-52), said method comprising the steps of:

requesting said mobile communication terminal, by said external module, to execute a communication protocol sequence Column 4 lines 53-56, where Simpson et al. describe a registration request);

executing, by said mobile communication terminal, said communication protocol sequence in accordance with said request by Said external module (Column 4 lines 56-57, where Simpson et al. disclose a registered subscriber);

an internal acquisition mechanism (the internal control logic) for acquiring information, in response to commands from said external module (the removable card, see figure 3, items 133,132, column 1, lines 28-65, column 5, lines 5-37), from said mobile terminal relating to an internal state of said mobile communication terminal during execution of a communication protocol sequence (Column 6 lines 48-68, column 7 lines 1-2) and

supplying, by said mobile communication terminal, the acquired information to said external module (Column 6 lines 48-68, column 7 lines 1-2, figure 3 element 122);

collecting, by said external module, information that has been supplied by said mobile communication terminal (Column 6 lines 48-68, column 7 lines 1-2); and

storing, in said external module, the collected information (Column 6 lines 48- 68, column 7 lines 1-2, figure 3 element 132).

Simpson is silent as to whether the test program is executed from the smart card. Johansson teaches a smart card (SUM card figures 1A, 1B, item 22) with a processor (CPU see figure 1B item 22 column 4-15) which executes programs affecting the mobile phone (see for example column 5, lines 10-15). Johansson teaches that control from the smart card improves reliability of execution (see for example column 4, lines 51-66, column 5, and lines 10-15). It would have been obvious to one of ordinary skill in the art to modify Simpson with the processor equipped card execution as taught by Johansson in order to improve reliability as taught by Johansson.

As to claim 30, Simpson teaches an method according to claim 29, wherein said step of requesting to execute said communication protocol sequence includes requesting, by said external module to execute said communication protocol sequence based on information that is stored (Column 4 lines 53-56, where Simpson et al. disclose a subscriber validation code).

As to claim 31, Simpson teaches an method according to claim 29, wherein said step of executing said communication protocol sequence includes execution by said mobile communication terminal of a communication protocol sequence by radio with a base station (Column 4 lines 53-56).

As to claim 32, Simpson teaches a method according to claim 29, further comprising a step of processing information that is stored in said external module (Column 4 lines 49-56).

As to claim 33, Simpson teaches an method according to claim 32, wherein said step of executing said communication protocol sequence includes requesting, by said external module, execution of a communication protocol sequence based on information that has been processed (Column 4 lines 53-57).

As to claim 34, Simpson teaches an method according to claim 29, wherein said external module is any one of a SIM card, a USIM card, and an IC card having higher specifications than a SIM card or a USIM card (abstract, column 2, lines 28-36).

4. Claims 35-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simpson et al in view of Johansson and in view of Rimpela et al (US 6,697,604).

Consider claim 35, Simpson et al. disclose an external module for installation in a mobile communication terminal (Abstract, column 4 lines 49-52), said external module comprising;

a program execution unit (Column 1 lines 16-30, column 2 lines 65-68, column 3 lines 1-4, where Simpson et al. disclose enhancing a service card);

a collection mechanism for communicating with said mobile communication terminal to collect information from said mobile terminal relating to the internal state of said mobile communication terminal (Column 6 lines 48-68, column 7 lines 1-2) and

a storage mechanism for storing therein information that has been collected by said collection mechanism (Column 6 lines 48-68, column 7 lines 1-2, figure 3 element 132).

Simpson is silent as to whether the test program is executed from the smart card. Johansson teaches a smart card (SUM card figures 1A, 1B, item 22) with a processor (CPU see figure 1B item 22 column 4-15) which executes programs affecting the mobile phone (see for example column 5, lines 10-15). Johansson teaches that control from the smart card improves reliability of execution (see for example column 4, lines 51-66, column 5, and lines 10-15). It would have been obvious to one of ordinary skill in the art to modify Simpson with the processor equipped card execution as taught by Johansson in order to improve reliability as taught by Johansson.

Simpson is silent as to whether the test program is executed from the smart card. Johansson teaches a smart card (SUM card figures 1A, 1B, item 22) with a processor

(CPU see figure 1B item 22 column 4-15) which executes programs affecting the mobile phone (see for example column 5, lines 10-15). Johansson teaches that control from the smart card improves reliability of execution (see for example column 4, lines 51-66, column 5, and lines 10-15). It would have been obvious to one of ordinary skill in the art to modify Simpson with the processor equipped card execution as taught by Johansson in order to improve reliability as taught by Johansson.

Simpson et al. as modified by Johansson do not disclose collecting during execution of test programs on said test program execution unit. Rimpela et al. disclose collecting during execution of test programs on said test program execution unit (Abstract, column 6 lines 26-36, column 8 lines 53-63, column 10 line 46-column 11 line 12, where Rimpela et al. disclose running tests on a control block). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to collect information during execution of test programs on the test program execution unit, as taught by Rimpela et al., in the method of Simpson et al. for the purpose of determining and controlling delays, data to be transmitted and desired functions of the mobile station (as suggested by Rimpela et al. in column 5 lines 33-45).

Consider claim 36, Simpson et al. disclose a mobile communication terminal in which an external module for executing test programs is installed (Abstract, column 4 lines 49-52), said mobile terminal comprising:

an acquisition mechanism (the internal control logic) for acquiring information, in response to commands from said external module (the removable card, see figure 3,

items 133,132, column 1, lines 28-65, column 5, lines 5-37), from said mobile terminal relating to the internal state of said mobile communication terminal (Column 6 lines 48-68, column 7 lines 1-2, where Simpson et al. disclose customizing the operation i.e. information relating to the internal state); and

an output mechanism for supplying information that has been acquired by said acquisition mechanism to said external module (Column 6 lines 48-68, column 7 lines 1-2, figure 3 element 122).

Simpson is silent as to whether the test program is executed from the smart card. Johansson teaches a smart card (SUM card figures 1A, 1B, item 22) with a processor (CPU see figure 1B item 22 column 4-15) which executes programs affecting the mobile phone (see for example column 5, lines 10-15). Johansson teaches that control from the smart card improves reliability of execution (see for example column 4, lines 51-66, column 5, and lines 10-15). It would have been obvious to one of ordinary skill in the art to modify Simpson with the processor equipped card execution as taught by Johansson in order to improve reliability as taught by Johansson.

Simpson is silent as to whether the test program is executed from the smart card. Johansson teaches a smart card (SUM card figures 1A, 1B, item 22) with a processor (CPU see figure 1B item 22 column 4-15) which executes programs affecting the mobile phone (see for example column 5, lines 10-15). Johansson teaches that control from the smart card improves reliability of execution (see for example column 4, lines 51-66, column 5, and lines 10-15). It would have been obvious to one of ordinary skill in the art

to modify Simpson with the processor equipped card execution as taught by Johansson in order to improve reliability as taught by Johansson.

Simpson et al as modified by Johansson do not specifically disclose acquiring during said test programs. Rimpela et al. disclose acquiring information during the test programs (Abstract, column 6 lines 26-36, column 8 lines 53-63, column 10 line 46-column 11 line 12, where Rimpela et al. disclose running tests on a control block). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to acquire information during the test programs, as taught by Rimpela et al., in the method of Simpson et al. for the purpose of determining and controlling delays, data to be transmitted and desired functions of the mobile station (as suggested by Rimpela et al. in column 5 lines 33-45).

Consider claim 37, Simpson et al. disclose a mobile communication system comprising

a mobile communication terminal; and

an external module for installation in said mobile communication terminal (Abstract, column 4 lines 49-52);

wherein said mobile communication terminal comprises:

an acquisition mechanism for acquiring information, in response to commands from said external module (the removable card, see figure 3, items 133,132, column 1, lines 28-65, column 5, lines 5-37), from said mobile terminal relating to the internal state of said mobile communication terminal (Column 6 lines 48-68, column 7 lines 1-2,

where Simpson et al. disclose customizing the operation i.e. information relating to the internal state); and

an output mechanism for supplying information that has been acquired by said acquisition mechanism to said external module (Column 6 lines 48-68, column 7 lines 1-2, figure 3 element 122);

and wherein said external module comprises:

a program execution unit for performing programs (Column 1 lines 16-30, column 2 lines 65-68, column 3 lines 1-4);

a collection mechanism for collecting information from said mobile terminal that has been supplied by said output mechanism of said mobile communication terminal (Column 6 lines 48-68, column 7 lines 1-2); and

a storage mechanism for storing therein information that has been collected by said collection means (Column 6 lines 48-68, column 7 lines 1-2, figure 3 element 132).

Simpson is silent as to whether the test program is executed from the smart card. Johansson teaches a smart card (SUM card figures 1A, 1B, item 22) with a processor (CPU see figure 1B item 22 column 4-15) which executes programs affecting the mobile phone (see for example column 5, lines 10-15). Johansson teaches that control from the smart card improves reliability of execution (see for example column 4, lines 51-66, column 5, and lines 10-15). It would have been obvious to one of ordinary skill in the art to modify Simpson with the processor equipped card execution as taught by Johansson in order to improve reliability as taught by Johansson.

Simpson et al as modified by Johansson do not specifically disclose collecting information for test programs on said program execution unit. Rimpela et al. disclose collecting information for test programs on said test program execution unit (Abstract, column 6 lines 26-36, column 8 lines 53-63, column 10 line 46-column 11 line 12, where Rimpela et al. disclose running tests on a control block). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to collecting information for test programs, as taught by Rimpela et al., in the method of Simpson et al. for the purpose of determining and controlling delays, data to be transmitted and desired functions of the mobile station (as suggested by Rimpela et al. in column 5 lines 33-45).

Consider claim 38, Simpson et al. disclose a method for communication by executing programs in a mobile communication terminal (Column 1 lines 16-30, column 2 lines 65-68, column 3 lines 1-4), an external module being installed in said mobile communication terminal (Abstract, column 4 lines 49-52), said method comprising steps of:

requesting said mobile communication terminal, by said external module, to execute a communication protocol sequence (Column 4 lines 53- 57);

executing, by said mobile communication terminal, said communication protocol sequence in accordance with said request by said external module (Column 4 lines 53-57);

acquiring, in response to commands from said external module (the removable card, see figure 3, items 133,132, column 1, lines 28-65, column 5, lines 5-37), from said mobile communication terminal, information relating to the internal state of said mobile communication terminal (Column 6 lines 48-68, column 7 lines 1-2, where Simpson et al. disclose customizing the operation (information relating to the internal state));

supplying, by said mobile communication terminal, the acquired information to said external module (Column 6 lines 48-68, column 7 lines 1-2, where Simpson et al. disclose customizing the operation (information relating to the internal state) and this information is stored on the SIM card);

collecting, by said external module, information that has been supplied by said mobile communication terminal as part of said program (Column 6 lines 48-68, column 7 lines 1-2); and

storing, in said external module, the collected information from said program (Column 6 lines 48- 68, column 7 lines 1-2, figure 3 element 132).

Simpson is silent as to whether the test program is executed from the smart card. Johansson teaches a smart card (SUM card figures 1A, 1B, item 22) with a processor (CPU see figure 1B item 22 column 4-15) which executes programs affecting the mobile phone (see for example column 5, lines 10-15). Johansson teaches that control from the smart card improves reliability of execution (see for example column 4, lines 51-66, column 5, and lines 10-15). It would have been obvious to one of ordinary skill in the art

to modify Simpson with the processor equipped card execution as taught by Johansson in order to improve reliability as taught by Johansson.

Simpson et al as modified by Johansson do not specifically disclose collecting information for test programs. Rimpela et al. disclose collecting information for test programs (Abstract, column 6 lines 26-36, column 8 lines 53-63, column 10 line 46-column 11 line 12, where Rimpela et al. disclose running tests on a control block). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to collect information for test programs, as taught by Rimpela et al., in the method of Simpson et al. for the purpose of determining and controlling delays, data to be transmitted and desired functions of the mobile station (as suggested by Rimpela et al in column 5, lines 33-45).

Response to Amendment

5. Note that since this action includes rejections not necessitated by amendment, this action is not being made final.

6. Applicant's arguments with respect to claims 20-38 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip J Sobutka whose telephone number is 571-272-7887. The examiner can normally be reached on Monday - Friday, 8:30am - 5:00pm.

8. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4177.

9. The central fax phone number for the Office is 571-273-8300.

Most facsimile-transmitted patent application related correspondence is required to be sent to the Central FAX Number.

CENTRALIZED DELIVERY POLICY: For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the Central FAX number, unless an exception applies. For example, if the examiner has rejected claims in a regular U.S. patent application, and the reply to the examiner's Office action is desired to be transmitted by facsimile rather than mailed, the reply must be sent to the Central FAX Number.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Philip J Sobutka/

Primary Examiner, Art Unit 2618

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